

REMARKS

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

Claims 1-21 are active in this application. Claims 4 and 5 are withdrawn from consideration.

Interview Summary

Applicants wish to thank Examiner Lightfoot for the helpful and courteous discussion with Applicants' Representative on June 8, 2011.

It was noted that Applicants disagree with the Examiner's position that based on the disclosure of paragraph 46 of Nun, other hydrophobizing agents can be used. Further, there is no disclosure of the claimed cocondensates.

Further, Inokuchi does not disclose any cocondensates as claimed either. All that this reference discloses is mixture of alkoxysilanes (co. 3, ln. 19-24).

Jenkner, at paragraph 6, describes some state of the art in which a substrate surface may be covered with SiO₂ particles and then coated with fluoroalkyltrialkoxysilanes. In contrast to the conventional methods, Jenkner **wants to use certain pre-treatment methods (see paragraph 15)**. Thus, Jenkner does not disclose or provide any motivation or suggestion to cover a surface with microparticles as claimed and then coat with a cocondensate as claimed. In fact, Jenkner teaches away from doing this as Jenkner requires physical pre-treatment such as corona discharging, flaming, glow, discharge etc. (paragraph 15).

Further, during the discussion regarding Nun, the Examiner has referred to paragraph [0052] which discloses the use of Dynasilane 8262 for hydrophobization. The surface was

treated with a polymer as set forth in Example 1 and then, after partial drying, aluminum oxide C was applied and the polymer was cured. After that excess particles were brushed off and dipped into Dynasilane 8262.

The Examiner further referred to the Examples of Jenkner starting at paragraph [0036] concluding that Dynasilane 8262 and 8810 are equivalent. Applicants' Representative replied that all that is shown is that they are used for the examples of Jenkner and that the substrates of Jenkner need a specific pre-treatment.

Additional comments in reply to issues raised during the interview

In reply to the Examiner's conclusion that Dynasilane 8262 and 8810 are equivalent, the Examiner's attention is drawn to the Examples of Jenkner. A comparison can be made between Dynasilane 8262 and 8810 for a PMMA substrate. The advancing angles for both are different (see table 1 and 2 for PMMA substrates), evidencing that **Dynasilane 8262 and 8810 are NOT equivalent.**

In addition, Nun and Jenkner are in a different field of endeavor because they do not deal with the obtaining of surfaces that have lactophobic properties. They try to solve different problems. Nun wants to provide self-cleaning surfaces [0011] and Jenkner wants to provide hydrophobic and oleophobic coatings [0014]. Thus, Nun and Jenkner are non-analogous art. See *In re Klein* (Fed. Cir. June 6, 2011).

Rejoinder

Withdrawn claims 4 and 5 should be rejoined once claim 1 is found to be allowable. Notable, the withdrawn claims depend directly or indirectly on claim 1.

Prior art rejections

The rejections of the Claims under 35 U.S.C. § 103(a) over Nun in view of Inokuchi et al and further in view of Jenkner et al are traversed.

The present invention as set forth in **Claim 1** relates to a method for producing a surface,

the method comprising:

fixing microparticles to a carrier layer or a substrate either before or after hydrophobizing of said microparticles;

hydrophobizing said microparticles with component i),

to form a resulting surface having a surface structure,

the surface structure having elevations which are formed by said microparticles,

said elevations having a mean height of from 20 nm to 25 μ m and a mean separation of from 20 nm to 25 μ m,

the microparticles having a particle diameter of from 0.02 to 100 μ m and having been hydrophobized with component i);

the resulting surface having self-cleaning, oleophobic, lipophobic and lactophobic properties; and

wherein the component i) is an oligomerized cocondensate of 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyltriethoxysilane and 3-amino-propyltriethoxysilane.

Nun in view of Inokuchi et al and further in view of Jenkner et al fail to disclose or suggest a method as claimed in which the microparticles are hydrophobized with component i) which is an **oligomerized cocondensate of 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyltriethoxysilane and 3-aminopropyltriethoxysilane.**

Nun in view of Inokuchi et al and further in view of Jenkner et al fail to disclose or suggest that particles are hydrophobicized with oligomerized cocondensate of 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyltriethoxysilane and 3-aminopropyltriethoxysilane **in such a way that self-cleaning, oleophobic, lipophobic, and lactophobic properties are obtained simultaneously for the resulting surface.**

Further, the limitations of **Claims 6-21** are not disclosed or suggested by Nun in view of Inokuchi et al and further in view of Jenkner et al.

Nun discloses the hydrophobicization of particles in paragraph [0025], in paragraph [0028], the fluorine-containing compounds of the carrier are disclosed, and in paragraphs [0046] and [0047], particles with hydrophobic properties achieved with perfluoroalkylsilanes are disclosed.

However, Nun remains silent about how to achieve *the combination of the properties* as claimed in the present invention.

Applicants disagree with the Examiner's position that based on the disclosure of paragraph 46 of Nun, other hydrophobizing agents can be used. Further, there is no disclosure of the claimed cocondensates.

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suggestion to cover a surface with microparticles as claimed and then coat with a cocondensate as claimed. In fact, Jenkner teaches away from doing this as Jenkner requires physical pre-treatment such as corona discharging, flaming, glow, discharge etc. (paragraph 15).

Further, regarding Nun, the Examiner has referred to paragraph [0052] which discloses the use of Dynasilane 8262 for hydrophobization. The surface was treated with a polymer as set forth in Example 1 and then, after partial drying, aluminum oxide C was applied and the polymer was cured. After that excess particles were brushed off and dipped into Dynasilane 8262. The Examiner further referred to the Examples of Jenkner starting at paragraph [0036] concluding that Dynasilane 8262 and 8810 are equivalent. Applicants' Representative replied that all that is shown is that they are used for the examples of Jenkner and that the substrates of Jenkner need a specific pre-treatment.

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In addition, Nun and Jenkner are in a different field of endeavor because they do not deal with the obtaining of surfaces that have lactophobic properties. They try to solve different problems. Nun wants to provide self-cleaning surfaces [0011] and Jenkner wants to provide hydrophobic and oleophobic coatings [0014]. Thus, Nun and Jenkner are non-analogous art. See *In re Klein (Fed. Cir. June 6, 2011)*.

Besides the fact that Jenkner and Nun try to solve different problems, it is a necessary property at Jenkner to pretreat the polymeric substrate by a gas discharge or at least a physical excitation method, like, for example, a corona / plasma discharge ([0015], Example 2), or exposition to an excimer lamp (Example 1).

Thus, even a combination of Jenkner and Nun would not lead a person skilled in the art to the present invention.

Therefore, the rejections of the claims under 35 U.S.C. § 103(a) over Nun in view of Inokuchi et al and further in view of Jenkner et al are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of these rejections is respectfully requested.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

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